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ABSTRACT

The self-declared mission for each campus of the University of Nevada system and future plans are described, along with projections regarding the future population and economic changes, resources for the future, and future student enrollment and academic programs. Goals of the overall state system and priorities for the 1980s and 1990s are also outlined. Projected economic, political, and social conditions that will affect higher education include the following: the state's population will continue to grow and enrollment levels will increase; Nevada's universities will continue to receive students who enroll at the freshman level as well as those who transfer from community colleges; the community colleges will continue to enroll, through open admissions, students of all ages; the enrollment mix in the future will contain larger proportions of lifelong learners and part-time students; in general, student demand for doctoral programs is not expected to increase significantly in the immediate future; there will be increased demand for programs delivered through telecommunications directly to people in homes and businesses; and no major changes in Nevada's economy are expected. (SW)

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NEVADA 2000

FUTURE DIRECTIONS FOR NEVADA'S COLLEGES AND UNIVERSITIES

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University of Nevada System Board of Regents

405 MARSH AVENUE
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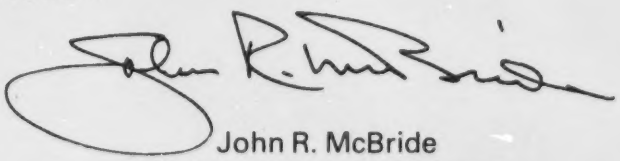
From the Board of Regents of the University of Nevada System.

More than one hundred years ago, the Board of Regents of the University of Nevada System was charged by the constitution of the State of Nevada with the management of the university.

This report, "Nevada 2000," outlines the Board's continuing commitment to quality higher education, and to careful allocation and management of our increasingly scarce educational resources.

In the future, Nevada and its student enrollment will grow substantially, as will the University System's contributions in teaching, research and service to the citizens of the state. We face a challenging, yet positive, future for our state and for higher education.



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University of Nevada System

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From the Chancellor of the University of Nevada System.

By the year 2000, the number of students in Nevada colleges and universities will double. More Nevadans are returning to campus for education and training and new programs—some highly technical—are being developed to fulfill their needs.

To meet this future responsibility, the universities, community colleges and research institutes of the University of Nevada System are embarked on a course of excellence in teaching, sound scholarship, and service to the public.

"Nevada 2000" describes the self-declared mission of each campus and its plans for the coming years. We are dedicated to the improvement of higher education and we are committed to being full partners in the growth and diversification of the State of Nevada.

Robert M. Bersi
Chancellor

THE CAMPUSES OF THE UNIVERSITY OF NEVADA SYSTEM

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Leonard Goodall, President

UNIVERSITY OF NEVADA
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CLARK COUNTY
COMMUNITY COLLEGE
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NORTHERN NEVADA
COMMUNITY COLLEGE
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Jack Davis, President

DESERT RESEARCH INSTITUTE
Clifford J. Murino, President

NEVADA 2000

FUTURE DIRECTIONS FOR NEVADA'S COLLEGES AND UNIVERSITIES

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OFFICE OF ACADEMIC AFFAIRS
UNIVERSITY OF NEVADA SYSTEM
WARREN H. FOX, VICE CHANCELLOR
1983

THE UNIVERSITY OF NEVADA SYSTEM

One of Nevada's greatest assets is the University of Nevada System. Its colleges, universities, and research centers are well prepared to contribute to the progress of Nevada over the next two decades. In the near future, the State of Nevada and the West will be in need of an educated workforce for industry, commerce, public service, and the general welfare. The campuses of the University System will provide this through excellence in teaching, sound scholarship, and service to the public. Nevada's future to the year 2000 will be one of growth, rapid change, and diversification. The campuses of the University System will be a part of that future, as well as a valuable resource to prepare students - young and old - to be productive and educated citizens. The University of Nevada System is building a system of higher education for a 21st century Nevada.

The exclusive governance and administration of the University System was vested in the University of Nevada Board of Regents by the state constitution in 1864. By establishing policy in higher education, the Regents have provided direction that has led, over the last 100 years, from a small campus in Elko to a multicampus system of seven campuses serving all parts of the state and over 40,000 students. By 2000, enrollment at several campuses will more than double, with the total number of students close to 70,000.

TABLE 1

FORECAST

University of Nevada System
Estimated Student Enrollment to 2000

YEAR	1985	1990	1995	2000
Enrollment	43,789	52,188	60,132	68,867

The Regents, who will oversee this growing system of higher education in the state, will govern according to the following goals.

GOALS OF THE UNIVERSITY OF NEVADA SYSTEM

1. To provide all public programs of postsecondary instruction in Nevada.
2. To sponsor and undertake those programs of basic and applied research which complement the programs of instruction and which contribute to the cultural, economic, and social development of Nevada and the nation.
3. To sponsor and conduct continuing programs of public service for the citizens of the state.

To accomplish these goals and serve the citizens of Nevada through the year 2000, faculty, administrators, and staff will pursue the following policies.

Teaching: Instructional activities shall demonstrate a continued quest for academic excellence. Endowments for excellence in teaching shall be used to establish academic chairs so that additional teachers of national rank will join our college and university faculties. Outstanding performance in instruction shall be an important part of performance evaluation. Campuses shall undertake creative recruitment to attract scholars, professionals, artists,

writers, and scientists who will contribute to Nevada's growing reputation for excellence in teaching.

Scholarship: Outstanding teaching is dependent upon sound scholarship. University faculties shall pursue scholarship and research to create new knowledge and advance their discipline and profession. Scholarship and creative work shall be protected by academic freedom and contribute to academic theory or national or regional issues.

Public Service: As a contribution to the State of Nevada, faculty and professionals shall make their expertise available to the people of the state, participate in civic studies, public forums, and professional associations to advance general knowledge and contribute to the general welfare.

Through coordinated efforts, in response to diverse social needs, instructional programs, research, and public services, our community colleges, universities, and research institute will provide a broad range of needed programs efficiently and effectively. Planning strategies will support productive use of resources and reduce unnecessary duplication of services.

Directions for the future of higher education in Nevada include a) planning, so that resources provide as many educational opportunities as possible at a reasonable cost,

b) administration, so that programs and expenditures are coordinated and accountable, and c) delivery, to insure that campuses can provide educational services needed by citizens of the state.

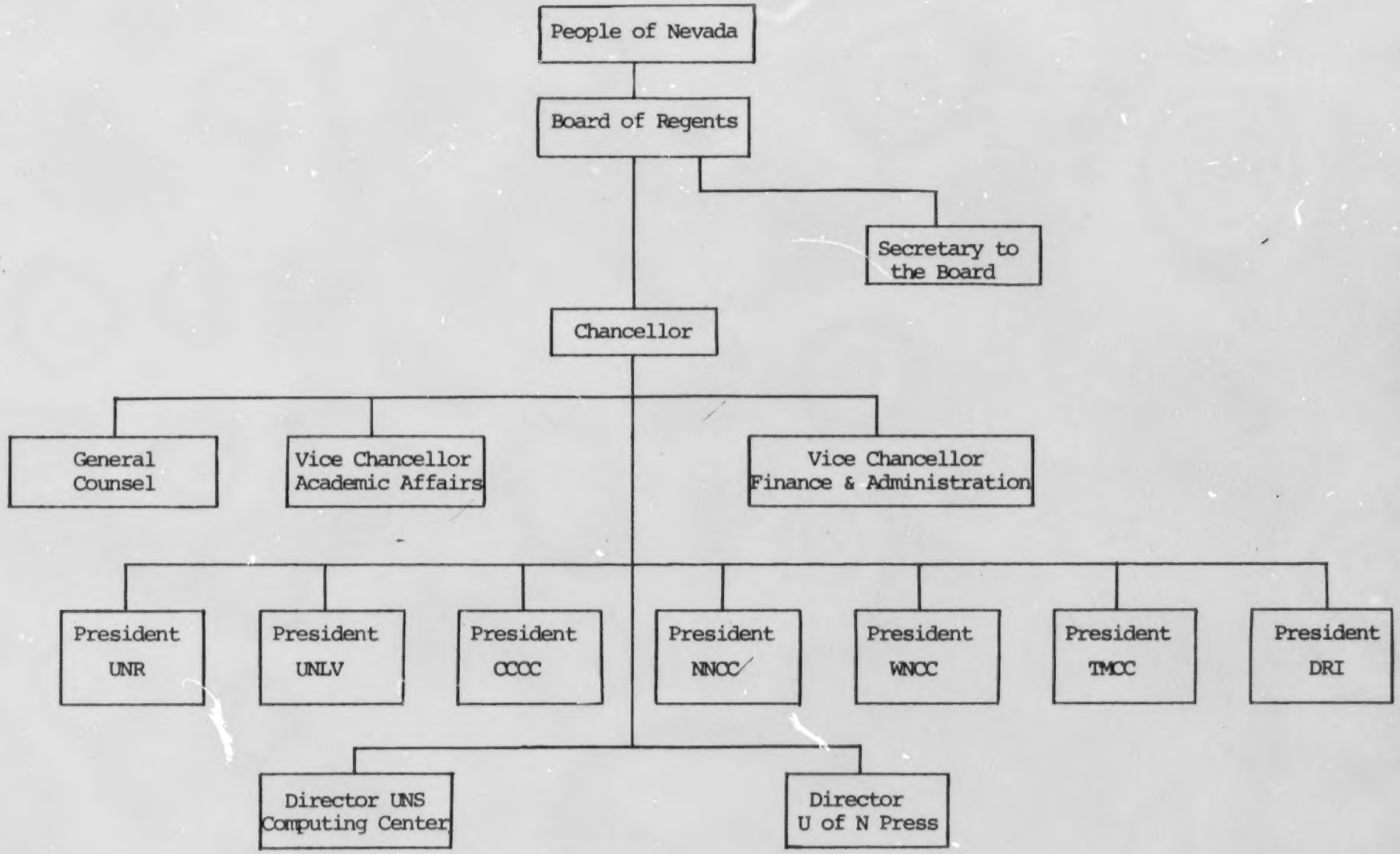
During the decade of the seventies, Nevada grew faster than any other state, at more than four times the national average. Higher education in the state grew as well. By the seventies, Nevada expanded from the University of Nevada, Reno, a land grant university with baccalaureate and graduate programs, and University of Nevada, Las Vegas, with similar programs, to a multicampus system including a medical school, four community colleges offering occupational and developmental programs and associate degrees, and the Desert Research Institute. The office of the Chancellor provides coordination of the System and administers the Computing Center and the University of Nevada Press.

During the eighties and nineties, priorities of these components of the System shall be:

Community Colleges: To provide comprehensive community college educational services which include occupational education and continuing education to any citizen of the state who desires to enroll.

University of Nevada, Reno: To provide, as a land grant university, comprehensive baccalaureate and graduate programs in the liberal arts and sciences, mining, agriculture, medicine, and the professions.

UNS ORGANIZATIONAL CHART



University of Nevada, Las Vegas: To provide undergraduate and graduate education in the social sciences, sciences, humanities, and professional areas such as business education, hotel administration, and science, math and engineering.

Desert Research Institute: To foster and conduct fundamental and applied scientific research, and to attract research funds and contracts from government and industry.

Office of the Chancellor: To provide leadership in higher education, academic program coordination and planning for the System, and informational, computing, and budgetary support for the system and its campuses.

In accomplishing these priorities, the University of Nevada System will increase cost effectiveness through the implementation of a management information system, improved computer capacity for instruction and research, improved programmatic articulation among campuses, improved computerized System budget practices, and improved personnel policies to provide expertise, flexibility, and new ideas.

Planning for the future is at best uncertain. But certain assumptions about the future have been made and will contribute to the direction of higher education in Nevada. The following forecasts outline the expected economic, political, and social

environment in which our universities and colleges will operate in the future.

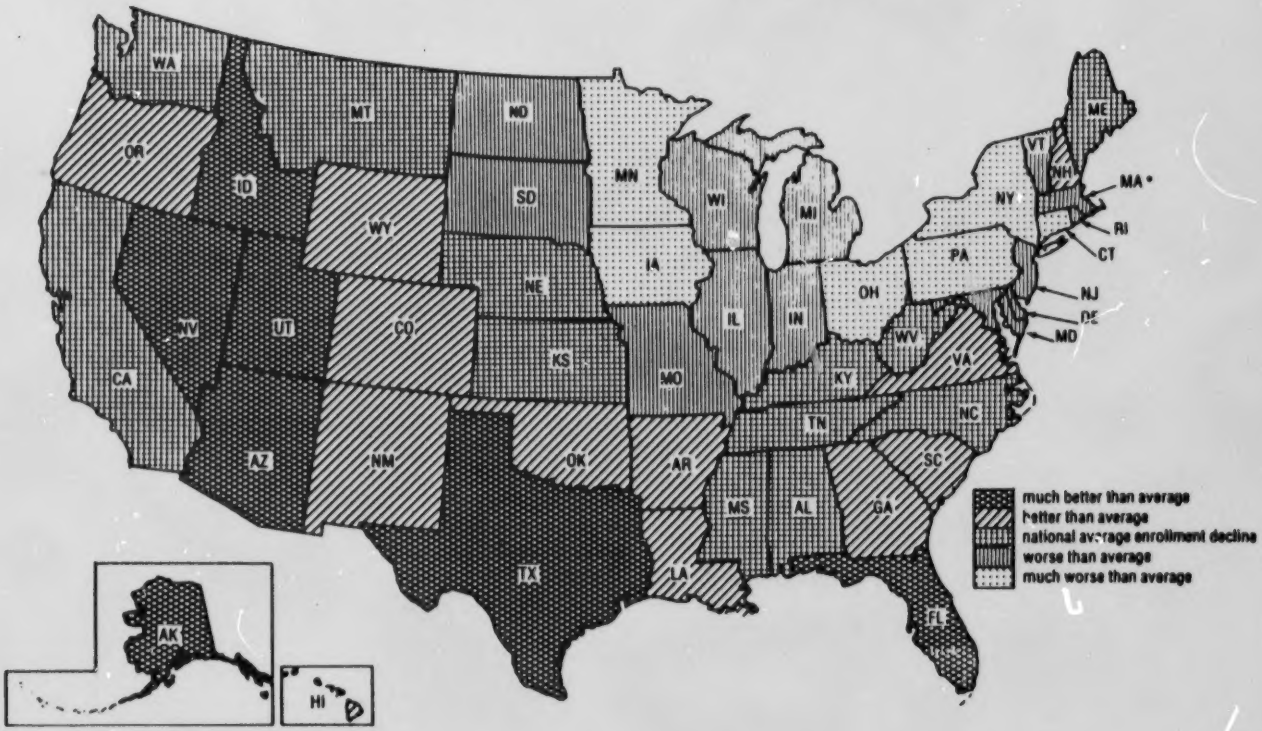
It is assumed that:

1. The state's population will continue to grow and enrollment levels will increase in contrast to the trend toward significant enrollment declines expected in other states.
2. Nevada's universities will continue to receive students who enroll at the freshman level as well as those who transfer from the state's community colleges. Demand for baccalaureate and professional education will grow.
3. The community colleges will continue to enroll, through open admissions, students of all ages. Demand for occupational education will grow.
4. There will be no major changes in public attitudes toward higher education within the planning period.
5. The enrollment mix in the future will contain larger proportions of lifelong learners and part-time students. Such students will require flexible scheduling and a diversity of programs, especially at the bachelor's and master's degree levels.
6. In general, student demand for doctoral programs is not expected to increase significantly in the immediate future.
7. There will be an increased demand for programs to be delivered through telecommunications directly to people in their homes and businesses.

8. Emphasis on the quality of educational services provided will be increased.
9. No major changes in the economy of Nevada are expected.
10. Campuses will increasingly seek and secure outside support from alumni, foundations, and corporations.
11. Technological innovation will spur computerization in research and classroom instruction. Computer literacy will be a skill required of increasing numbers of students and faculty.
12. The role of higher education in economic development of the state will become increasingly important.

TABLE 2

Carnegie Council Projected Enrollment Trends in the 1990s Relative to the National Average



Source: Carnegie Council estimates.

From the Carnegie Commission, "Meeting the Problems of the Next Two Decades"

1. Analyze All Factors Likely to Affect Future Enrollments

   Demography, changing population mix, labor market changes, type of institution, state population, and fiscal trends

2. Insist on Systemwide Planning

   Anticipate future problems, avoid moving from crisis to crisis, consider prospects for each campus in multicampus institutions

3. Encourage Strong Leadership by Chief Executive Officers

   Give them ample authority and assurance of reasonable length of term of service

4. Intensify Recruitment Efforts and Reduce Attrition

   Rely on methods appropriate to academic life, avoid deceptive advertising

5. Give High Priority to Maintenance of Quality

   Maintain high standards for faculty, insist on quality in teaching, maintain distinctive characteristics of institution, protect internal life of institution, improve achievement and capacity of graduates, emphasize high standards of scholarship and of research in research-oriented institutions, preserve institutional integrity

6. Encourage Innovation and Flexibility

   Develop curriculum that is sensitive to change but also to emphasis on general education, establish fund for innovation, avoid too high a proportion of tenured-in faculty, encourage new programs and instructional techniques

7. Strive for Most Effective Use of Resources

   Avoid excessive number of courses and proliferation of degrees, review student-faculty ratios by department, maintain adequate support personnel, avoid excessive cuts in plant maintenance and library acquisitions

8. Seek Support from Private Sources of Funds

   Devise imaginative ways of approaching alumni and other donors

9. Concentrate on proposals to federal and state governments that will result in better programs at no increase in the real levels of federal and state expenditures that acknowledge the likelihood of some reductions but not proportionately to reduced enrollments.

THREE THOUSAND FUTURES, p. 130

The future of Nevada higher education is bright. It is one of growth, quality, and maturation. Nevada has been projected by the Carnegie Commission as only one of seven states to realize growth in its colleges and universities. The value of higher education as an asset to the state will increase by the year 2000. The system will educate more students, employ more faculty, utilize newer technology, improve instructional methods, computerize courses, and have attained a reputation for excellence in teaching by 2000.

Overall, higher education by 2000 will be characterized by innovations in instruction including technological change, by changes in the student body (it will be more culturally and ethnically diverse and older), by changes in financing (contributions will come from both the private and public sectors), and by changes in program coordination (students may often attend more than one campus). One thing shall remain constant - the vital role of the University of Nevada System in education, economics, and productivity in the State of Nevada.

Each campus will contribute to the overall effectiveness of the System and assist in meeting the original constitutional provision to provide higher education for the State of Nevada.

Each campus of the System pursues goals outlined in a statement on its mission in education, and they are included in the next section.

University of Nevada, Las Vegas

During the first 25 years of the University of Nevada, Las Vegas' existence, the combined efforts of the legislature, the Regents, and the university administration and faculty have provided the basic foundation for a truly fine institution. The mission of the university for the next 10 years should be built on that foundation. The chief priority should be to improve the quality of the services the university offers the community in the four traditional areas of the academic mission: preserving, discovering, disseminating, and applying knowledge. These areas define the essential nature of a university. The University of Nevada, Las Vegas could reach an enrollment of 20,000 students over the next 10 years; its growth both requires and provides the opportunity for major improvements. Most broadly, during this period, the university should: 1) eliminate major deficiencies which deny the completeness essential to a university; 2) become the equal of high caliber, "ranked" state institutions; and 3) achieve national and international recognition in one or more fields of study of significant relevance to the community it serves.

The next decade should see the University of Nevada, Las Vegas engage much more intensely in the discovery and preservation of knowledge, the two academic areas which most centrally define the excellence of an institution of higher learning. Without such an emphasis on research and the various

types of archival, library, and museum activities, both the dissemination and the application of knowledge will suffer. Excellence in teaching at the university level requires a faculty's continuing activity in research and adequate facilities and support for such research.

Such an emphasis, of course, must build on the existing strengths, locale, and unique characteristics of this institution. it will require the continuing growth of programs, facilities and resources, which must meet the growing needs of both traditional and "non-traditional" students. During this period, UNLV should selectively establish appropriate new graduate (including doctoral programs) and professional programs and should obtain accreditation for all existing professional programs. To become a truly high quality institution, the university must increase resources supporting faculty development and research. Such emphasis on the quality of faculty is essential if we are to attract and serve the more academically talented students of our state, many of whom now go out-of-state for their postsecondary education. In turn, as the quality of the student body improves, the university will be able to attract an increasingly prestigious faculty. The library, computer center, and other facilities which support the university's academic mission must keep pace with this growth.

A reasonable and realistic mission for the end of this decade, then, is to increase the overall academic quality of

this institution. That mission entails planning for improvements in the following six areas:

- -undergraduate education
- -graduate education
- -faculty development and research
- -ancillary (or "support") services
  - -program resources
  - -institutional programs
- -community relations (including the legislature)
- -physical plant

University of Nevada, Reno

The single most distinguishing characteristic of UNR is its designation as a land grand institution with the attendant special responsibilities to the people of Nevada for instruction, research, and public service.

The mission of the University of Nevada, Reno, as it enters the 1980's is unique in the State of Nevada. UNR is the only four-year institution in the northern part of the state, and it currently is the sole institution in Nevada offering Ph.D. programs. The university will continue to evolve strategies whereby it can work in harmony with the community colleges to assure a smooth and expeditious transfer of students into baccalaureate programs. It will continue to offer a broad set of graduate programs, maintain its continuing education program at the undergraduate and graduate levels, and provide students with many

professional programs of study through its eight professional schools and colleges. The university will maintain its strong programs in the liberal arts and sciences which are important in their own right but also provide the foundation for all academic programs within the institution. As a "partner in progress" with the people of Nevada, UNR will seek to provide the resources necessary to assist the state in its program for economic diversification. This will entail high quality programs for individuals interested in career ladder mobility or for certification, as well as a wide range of consultation services for the professions, business, and industry.

Research is crucial to a university's vitality. A strong program in both basic and applied research will be fostered at UNR during the 1980's. It will be essential to the economic diversification of the state's economy. In other areas, the university and its faculty must respond to broader national and international research responsibilities, which often have important local and state implications as well.

The projected mission of UNR is that of a quality middle-size public university. It sees its future inextricably bound to the people of Nevada as an indispensable partner in growth and progress. This commitment will inevitably increase during the years that lie ahead. UNR will seek to meet its obligations as a public university in terms of high quality academic programs at all levels, in basic and applied research, and in bringing its expertise into the community to assist in solving the anticipated problems which lie before us.

Clark County Community College

The mission of CCCC is to bring postsecondary educational opportunities within the regional, psychological, and financial reach of all who seek them. CCCC seeks to offer quality, economical, accessible, and convenient instructional and other services in career education, general education, technical, transfer, and developmental training, and lifelong learning whereby students may obtain the knowledge and skills needed for careers in business, industry, and government; students may prepare themselves for transfer to other collegiate institutions to obtain the baccalaureate or other degrees; students may benefit from the developmental and special programs tailored to enhance individual student success; students may obtain continuing education at any age; and students may enrich their lives and the life of the community by means of community education programs.

The institutional goals of CCCC are: to create an environment reflective of a commitment to excellence in all personal, social, and economic life endeavors; to assist in the develop ment of a commitment to the value dignity of individual human life and the quality of humane society; to encourage a desire for continuous learning and development for all persons; to enhance creative thinking, skills at problem-solving, and enriched imagination; to assist in the realization of the need to effectively enrich and blend inner and public life, to enrich the society by individual efforts; to share and lead in community

growth and development; and to affirm unique differences in the satisfying of educational needs.

Future planning for Clark County Community College will include:

Lifelong Learning

In an era of adult education and multi-career patterns, older, part-time, female, minority, handicapped, and working students increasingly will attend the college for specific, individual purposes and then leave the institution. At a later time in the adult life cycle, these same students will return to the college for yet another set of reasons.

Holistic Education

Curricula which integrate traditional academic disciplines with psychosocial values study and manual/physical activities should be explored to maximize the effects of the educational experience.

Academic Consortia

The college will increasingly emphasize the development of self-sustaining training/educational consortia with business/industry, government, and other educational entities. Through consortia, cluster curricular patterns can be developed which integrate various career areas and the humanities.

Competency-Based Education

Careful consideration should be given to the differences in competencies which can be reasonably expected of students completing various program levels, e.g., Certificate of Achievement and Associate of Applied Science degree.

International Education

The college must focus a portion of its attention upon the international arena. Various curricular areas should emphasize the international character of the subjects that are taught (Resort Technology, Health Occupations, Business).

Electronic Education

Computer, television, audio-visual disk, and telephone communications technology will make it possible to provide educational methods which complement and exploit emerging electronic technology to the maximum.

The Knowledge Worker

The college's curriculum should increasingly be organized so that learners enhance their abilities to make qualitative and quantitative inferences. By learning how to learn, students attending the college will be better equipped to deal with a world which manifests abrupt changes and ever-increasing diversity.

Northern Nevada Community College

Northern Nevada Community College will have five areas of instructional responsibility: 1) a two-year liberal arts program leading to an associate degree; 2) preparation for specific vocational/technical careers; 3) a continuing education program for the updating and upgrading of present job skills; 4) a developmental program of basic mathematics, English, and reading classes for those students unprepared for college work; and 5) community service classes to bring a variety of educational

experiences into the community. NNCC will seek to extend its services throughout its five-county, 47,000 square-mile domain, fulfilling its responsibility to adults in rural areas as well as those in centers of population.

The college will strive to maintain a climate of mutual trust and respect among students, faculty, and administrators in which communications throughout the organizational structure are open and candid. Another mission is to assist students throughout our service area to identify their personal educational goals and develop means of achieving them.

The college will attempt to create an institution known in the community as a responsive, intellectually exciting, and stimulating place. This goal will be accomplished by systematically discussing the nature, purpose, and work of the college with the citizens of the service area.

Truckee Meadows Community College

Truckee Meadows Community College is committed to providing 1) occupational education, and will continue to offer occupational programs and courses in response to labor market requirements, and develop and implement new occupational programs and courses; 2) general and developmental education which insures that students in an Associate in Applied Science (occupational) degree program receive the proper ancillary skills and knowledge towards achievement of that degree, and insures that students

acquire a basic knowledge in the natural sciences, social sciences, and the humanities, and provide a comprehensive developmental/educational program; 3) community service programs, in order to meet the continuing education needs of all learners in the service area; 4) programs which provide a course of liberal arts study appropriate for transfer to four-year institutions.

In order to succeed in each mission, a strong counseling and guidance program will be provided, and learning resources need to be provided. We will continue to respond to adult education needs, strenghen student services, and provide institutional support, administrative services, and leadership that will result in the continued growth and development of the college.

As a college, we hope to continue several policies such as open-door admissions, relatively low fees, a wide range of individualized remedial programs, alternate semesters and flexible scheduling, all with a high emphasis on guidance and counseling.

An important goal is to provide for every student the opportunity to acquire the skills which will allow him or her to make a living, no matter what level of education has been achieved.

College curriculum in the future will reflect the changes in the quality of life from that of the 1970's. There will be an increased emphasis on the assessment of training and educational needs for various types of employees in local businesses and industries. The college will offer more concentrated and flexible programs to accommodate the needs of students and their

employers. Because of increasing economic pressures, more people will want to attend college classes that provide instruction in "do-it-yourself" skills. Students will also want instruction in conserving energy and non-renewable resources. Increased emphasis on health and physical well-being will result in more instruction related to physical activities. There will be increased demand for developing and enhancing job-related skills.

TMCC will continue to develop its partnership in higher education with UNR. There will be an increased emphasis on cooperative efforts between the faculties of both institutions in order to better serve students. This cooperative effort will demonstrate that community colleges and universities have complementary missions rather than competing missions with regard to the students they serve.

The most important job of a community college is to provide education tailored to the community it serves. As a comprehensive community college, TMCC will offer lifelong learning in areas from leisure activities to specific occupational skills to the liberal arts.

Western Nevada Community College

Western Nevada Community College will operate under the guidelines approved by the Board of Regents in their State Plan for Community Colleges in the State of Nevada. The major principles which this encompasses are: community colleges subscribe to an open-door policy of admitting any high school graduate or

any adult who is capable of profiting from continuing education; a system designed to pass students rather than one designed to fail students; the community colleges should remain two-year colleges; they should be comprehensive in nature offering occupational, university parallel, community services, and developmental programs with broad counseling and guidance services available; and attain a goal of 60 percent of the students enrolled in occupational programs.

The college has been mandated to provide comprehensive educational services for students in both urban and rural populations. Since these populations are widely distributed, it is imperative that a multi-campus organizational structure be utilized. It is the intent of the college president to continue the multi-campus structure with campuses in Carson City and Fallon and satellite centers in Yerington, Hawthorne, Lovelock, Fernley, Gardnerville, and Incline. Each campus is allowed wide autonomy in order to meet the needs of students, faculty, and the community. All that has been stated is vital for the mission of the college; however, the most important postulate of this mission statement is that all members of the college staff have the responsibility, through continual planning, to make decisions which will provide quality educational instruction and services for the students of Western Nevada Community College.

Desert Research Institute

The Desert Research Institute is a research organization established by legislative act in 1959 with the primary purpose of fostering and conducting fundamental and applied scientific, economic, social and educational research for government, private agencies, and industry.

The Institute's research program is conducted by scientists, technicians, and graduate students organized as five research centers, Atmospheric Sciences, Bioresources, Energy Sytems, Social Sciences, and Water Resources, located in laboratory and office facilities in Reno, Stead, Las Vegas, and Boulder City, Nevada.

The Institute operates on an annual budget approaching $10 million, and its staff of 176 have undertaken more than 600 sponsored research projects.

The Institute serves the state not only through the acquisition of new knowledge in fields of special interest to the region, but also by providing a scientific and technological foundation upon which Nevada can rest its plans for economic diversification and development.

FUTURE POPULATION AND ECONOMIC CHANGES

By all accounts, Nevada will remain a dynamic, growing state: its population is projected to increase during the next 20 years, personal income will rise, new jobs should open up because of technological change, and the number of students attending college will increase. The University of Nevada System will structure higher education in Nevada based on probable impacts of the national and state economies and changes in population. In doing this, public higher education will face questions about its role as a public service, levels of state allocation of resources, and its ability to prepare students for academic and occupational success. The environment in which decisions will be made will be determined by changing economic, social, and demographic conditions. They will include:

- -The changing markets for college graduates holding two-year, four-year, and advanced degrees.
- -The increase in postsecondary educational activities conducted by business and industrial firms, government agencies, and community organizations.
- -The changing mix of students, which includes relatively fewer 18-to-22-year-olds and more adults and minorities.
- -The influx of population to the West and its uneven geographic distribution as people are attracted to geographic centers of high technology and energy development.
- -The uneven condition of the national economy and the economies of several western states.

-Mounting public resistance to tax increases and demands for broader accountability.[1]

These demographic changes, coupled with projections of the economy, will largely affect higher education in Nevada. By the start of the next century, national estimates indicate that the majority of jobs, 66%, will be related to information processing, 22% in more traditional manufacturing jobs, and 2% in agriculture.[2] A basic shift will occur to an information-based economy stressing computers, electronics, and communication, rather than industry. The University of Nevada System will not only respond to these changes, but it will be an important part of occupational and economic change.

An important linkage exists between the development and diversification of the economy in the state and the University of Nevada System. New electronic and "high-tech" industries are dependent upon high quality academic programs in engineering and computer sciences, for example. The development of quality educational programs that will prepare students for employment in new industries and the concomitant development of computer capacity for instruction and research will be major goals of the University of Nevada System to the year 2000.

[1]WICHE, Conference Paper, October 25, 1981.

[2]John Feirer, "Institutional Education in a Post-Industrial Society," Industrial Education, December 1981.

The Economic Environment

The state of the economy and population shifts will be the two major forces acting on higher education to 2000. Inflation is likely to continue, costs will rise, and demands on tax revenues will increase, which will put strain on the ability of colleges to provide increases in real ways to faculty, to support research, and to meet operating costs. Most states will face difficult decisions about financing higher education. Where resources are unavailable, public institutions will be concerned about preserving quality in education, and about reducing costs and programs.

In Nevada and the West, regional economic forecasts for the next two decades predict business activity and personal income to be above the national average.[3]

[3]U.S. Department of Commerce, Bureau of Economic Analysis, "Survey of Current Business," 1980.

TABLE 3

Earnings and Employment in Nevada, 1969-2000[4]

Earnings: Average Annual Growth Rate

1969-1978 - 6.1%

1978-2000 - 5.1%

Index, U.S. Average = 100

1969-1978 - 211%

1978-2000 - 152%

Employment: Average Annual Growth Rate

1969-1978 - 6.7%

1978-2000 - 3.1%

Index, U.S. Average = 100

1969-1978 - 322%

1978-2000 - 263%

In the far West (Nevada, Oregon, Washington, and California), each state will show an increase in personal income, with Nevada leading the way at 5.3%, to California with 3.3%.[5] "In 2000, the region's per capita personal income is

[4]Ibid.

[5]Ibid.

projected to be 106 percent of the U.S. average; and per capita income will continue to be above the U.S. average."[6]

TABLE 4

Total Personal Income in Nevada, 1969-2000[7]

Average Annual Growth Rate

1969-1978 - 6.7%

1978-2000 - 5.3%

Index, U.S. Average = 100

1969-1978 - 191%

1978-2000 - 160%

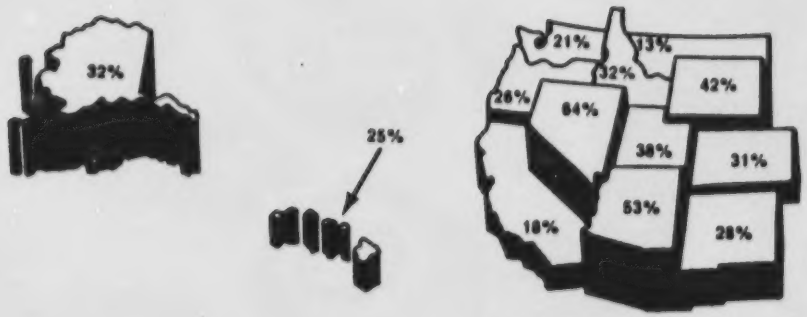
These estimates for Nevada show that it will share in the far West's growth and that the economic environment will not be a poor one. Economic forces determine employment, inflation, and levels of personal income. These bear directly on student enrollment, operating costs of colleges and universities, and job opportunities for graduates.

[6]Ibid p. 49.

[7]Ibid p. 47.

TABLE 5

RESIDENT POPULATION OF THE WEST
(APRIL 1980)
AND PERCENTAGE CHANGE, 1970-1980[8]



State	Population	State Rank
Nevada	799,184	1
Arizona	2,717,866	2
Wyoming	470,816	4
Utah	1,461,037	5
Idaho	943,935	6
Alaska	400,481	7
Colorado	2,888,834	8
New Mexico	1,299,968	9
Oregon	2,632,663	11
Hawaii	965,000	12
Washington	4,130,163	14
California	23,668,562	18
Montana	786,690	27
West	43,165,199	--

Percentage figures indicate population growth 1970-1980.

[8]Source: U.S. Bureau of the Census.

Student enrollment is not projected to decline but increase in Nevada due to population growth and immigration to the state. As well, the economy is projected to grow as is personal income. Barring any unexpected major shifts, these basic economic predictions are positive ones for the state.

Population in Nevada and the West

As population increases, so will the numbers of probable college and university students. Nevada experienced the most rapid growth rate for any state in the Union in the seventies. Projected annual growth rates for the eighties and nineties may decrease from these levels but overall, the State of Nevada will grow and approach a population of over one-and-a-half million people by 2000.

According to the U.S. Bureau of the Census, the population of the West increased about 25% from 1970-1980, which is more than twice the rate of growth for the nation. Eleven of the fourteen fastest growing states in the nation are in the West. Other figures show that indexed against the U.S. average annual growth rate (100), from 1969-1978 Nevada was 410%, and from 1978-2000 it is projected to be 409%.[9]

[9]U.S. Department of Commerce, op. cit., p. 47.

TABLE 6

NEVADA POPULATION FORECASTS BY COUNTY

1980-2000

	1980	1985	1990	1995	2000
CARSON CITY	32,022	40,097	50,348	55,588	61,295
CHURCHILL	13,917	16,370	19,258	20,041	20,840
CLARK	463,087	572,138	707,027	804,630	915,784
DOUGLAS	19,421	26,360	35,872	43,018	51,488
ELKO	17,269	20,313	23,789	26,265	28,962
ESMERALDA	777	936	1,133	1,251	1,379
EUREKA	1,198	1,451	1,762	1,945	2,145
HUMBOLDT	9,434	11,589	14,223	15,398	16,703
LANDER	4,076	5,055	6,293	6,948	7,662
LINCOLN	3,732	4,651	5,790	6,393	7,049
LYON	13,594	17,022	21,272	23,486	25,897
MINERAL	6,217	6,864	7,552	7,365	7,202
NYE	9,048	11,330	14,187	15,664	17,294
PERSHING	3,408	4,028	4,783	5,002	5,210
STOREY	1,503	1,846	2,266	2,502	2,758
WASHOE	193,623	239,817	293,519	321,162	351,049
WHITE PINE	8,167	8,752	12,845	10,235	10,235
	800,493	988,619	1,221,919	1,366,893	1,532,952

Prepared for the State Planning Coordinator's Office by the Bureau of Business and Economic Research, University of Nevada, Reno--September, 1982

Nevada, then, is not expected to follow trends in other states that are experiencing population loss and lower enrollments. The state's growing population and increasing numbers of adults returning to campus will cause student enrollment to climb. The U.S. Bureau of the Census notes that students over 25 years of age now comprise about one-third of those enrolled for credit, and that by the 90's they will equal the number of younger students enrolled.

Many of these adults will take selected courses rather than pursue a formal degree. To meet this challenge of the future, our community colleges especially should continue to provide flexible offerings, and the universities should adapt to the needs of adult learners.

A Changing Population

Significant growth in Nevada's population, increasing numbers of adults seeking educational and training opportunities in higher education, and larger enrollments at each campus are demands that the University of Nevada System must meet. Changing demographies within the State of Nevada will be monitored by our colleges and universities, so that they will be prepared to offer instruction to meet the needs of a changing population.

The University System will not only respond to population growth, social changes in student body composition, technological innovation, economic realities, and other external forces, but anticipate and plan for their occurrence. A principal

challenge for the University System will be to achieve a balance between available resources and growth in order to continue to provide quality in education.

Projected enrollment increases, as a result of several factors discussed above, are discussed in the next section as well as various academic programs to be offered by the campuses of the System.

FUTURE STUDENT ENROLLMENT AND ACADEMIC PROGRAMS

Nevada's continued growth to 2000 will have a major impact on public higher education in Nevada. As was mentioned earlier, all forecasts call for population growth over the next two decades. It is anticipated that large numbers of Nevada residents, and others as well, will make the decision to participate in higher education in Nevada. Increased student demand will, of course, affect the number and type of academic programs on each campus.

Annual average percentage growth rates for all campuses are projected to increase in every five-year increment from 1985-1990, 1990-1995, and 1995-2000, for both actual enrollment and FTE (full-time equivalent student). The community colleges show increases in enrollment for the period 1982-2000 of over 3.5% for Northern Nevada Community College, over 3% for Clark County Community College, almost 4% for Truckee Meadows Community College, and 5% for Western Nevada Community College. The universities are expected to demonstrate increases as well, with the University of Nevada, Reno, increasing about 1.5% at the undergraduate and 2.5% at the graduate level, and the University of Nevada, Las Vegas, at over 3.5% at the undergraduate level and over 3% at the graduate level. These are sound levels of growth, especially in the light of declining enrollments in other systems nationally. These figures are displayed in Table 7 below.

TABLE 7

ESTIMATED ANNUAL AVERAGE PERCENTAGE GROWTH

Campus	Forecast Period			
	1985-1990	1990-1995	1995-2000	1982-2000
NNCC				
Enroll:	3.54	3.37	3.19	3.69
FTE:	2.29	2.11	2.11	2.38
CCCC				
Enroll:	3.37	2.66	2.83	3.23
FTE:	3.54	2.66	2.83	3.31
TMCC				
Enroll:	4.06	3.37	2.83	3.89
FTE:	4.06	3.37	2.83	3.96
WNCC				
Enroll:	5.71	4.06	3.54	5.23
FTE:	4.90	3.71	3.19	4.58
UNR (U.G.)*				
Enroll:	1.36	1.36	1.17	1.49
FTE:	.98	.98	.98	1.10
UNR (Grad.)*				
Enroll:	2.47	2.29	2.11	2.50
FTE:	.98	.98	.79	1.05
UNLV (U.G.)*				
Enroll:	4.06	3.01	3.19	3.83
FTE:	3.19	2.47	2.66	3.09
UNLV (Grad.)*				
Enroll:	3.37	2.66	2.83	3.23
FTE:	3.01	2.29	2.47	2.82

*Forecast figures based on unemployment rate of 6% (Bureau of Business and Economic Research)

Statewide enrollment is expected to reach about 70,000 students by the year 2000. Table 9 provides detailed forecasts for each campus and notes about an 85% increase in growth from the 80's to the year 2000.

The largest number of students will be attending community colleges; community college headcount will be over 40,000 students with a bit less than 30,000 students in the universities. Expected growth for the community colleges is in population centers where campuses now exist. An objective of the community colleges in order to reduce duplication of effort will be to offer flexible programs through satellite centers and outreach programs to meet the demands of the future.

Students attending the community colleges will tend to enroll for fewer credits than those at the universities. The community colleges will serve well as educational service centers for a broad cross section of the population seeking specific courses, skills, and abilities, rather than a degree.

The future programmatic mix for community colleges will call for a primary focus in occupational programs built around a smaller core of liberal arts and sciences, accompanied by a flexible and dynamic array of community service courses to meet local needs and developmental courses to raise basic skills. Periodic review in each area to ascertain continued need, and program costs should be a component of program decisions. As compared to the community college student, the university student will enroll for more credits on the average, and thus total FTE for the universities will expand to about 19,000, which will

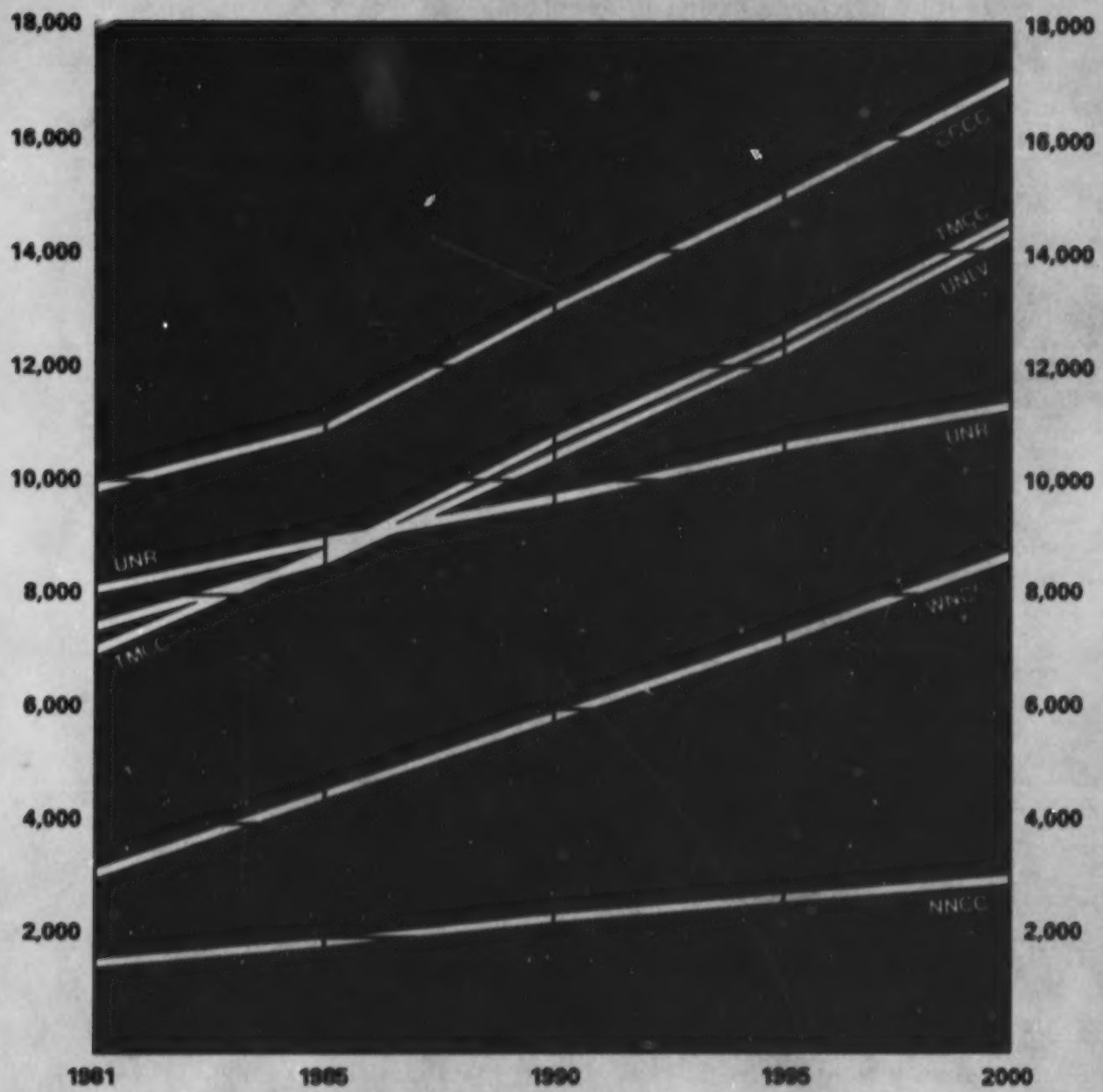
TABLE 8

ESTIMATED ENROLLMENT AND FTE FORECASTS

	1983	1984	1985	1990	1995	2000
NNCC						
Enroll:	1,789	1,856	1,925	2,292	2,702	3,161
FTE:	452	462	472	527	587	654
CCCC						
Enroll:	10,324	10,647	10,983	13,012	14,827	17,052
FTE:	3,642	3,759	3,880	4,615	5,272	6,077
TMCC						
Enroll:	7,997	8,376	8,754	10,647	12,540	14,443
FTE:	2,237	2,345	2,452	2,992	3,531	4,071
WNCC						
Enroll:	3,932	4,198	4,484	5,898	7,214	8,596
FTE:	1,071	1,132	1,197	1,521	1,823	2,139
UNR (U.G.)						
Enroll:	6,691	6,794	6,897	7,413	7,942	8,445
FTE:	6,056	6,124	6,192	6,529	6,876	7,206
UNR (Grad.)						
Enroll:	1,966	2,022	2,077	2,355	2,634	2,912
FTE:	893	902	911	957	1,004	1,049
UNLV (U.G.)						
Enroll:	7,300	7,580	7,871	9,626	11,197	13,122
FTE:	5,762	5,931	6,107	7,167	8,116	9,279
UNLV (Grad.)						
Enroll:	750	773	798	945	1,076	1,236
FTE:	749	769	789	914	1,024	1,161

(Bureau of Business and Economic Research, 1982)

ENROLLMENT FORECAST
UNIVERSITY OF NEVADA SYSTEM



exceed the total for community colleges of about 13,000. The universities will provide opportunities for a larger number of undergraduate and graduate students seeking a degree. Future program balance at the universities will call for a comprehensive mix of undergraduate degrees in traditional fields, periodically reviewed for quality and need, and a more limited number of graduate and professional programs based on fiscal constraints and economic outlook. Because of employed persons and adults returning to campus and students linking educational background with occupational opportunities, both the community colleges and the universities will need to provide improved academic advisement and flexible course scheduling and facility use. Larger numbers of students in two-year programs at the community colleges will also necessitate effective transfer policies to four-year programs and institutions. Linkages between programs at each level should be strengthened in order to allow improved student mobility.

Actual enrollment increases of the University of Nevada System from the 70's to the 80's amounted to over a 100% increase. Table 9 outlines increases for each campus over this period and shows statewide enrollment of over 40,000 students by 1980-81. This growth rate was a bit ahead of general growth trends in the West. Table 10 depicts higher education headcount enrollment in the West over the 70's. Nevada's growth in higher education followed general patterns of western states with larger growth in community college enrollment than university enrollment.

Overall, these trends are expected to continue in Nevada, and the impact is an important one. Nevada's system of universities and community colleges must deliver higher education to an ever-increasing number of diversified students while coping with technological and social change and pursuing a continued commitment to excellence in instruction. This will call for innovative use of resources, review of new and existing programs in relation to academic standards and occupational needs, and increasing levels of public and private support for higher education.

For these increasing numbers of students, the University of Nevada System must meet the need for several types of education: occupational, developmental, community service, baccalaureate, and graduate. It must do this for a future that is not all that certain, but a future that does indicate growth in student enrollment and public demand for academic and skills-oriented instruction.

In order to maximize the use of faculty, staff, and facilities, future planning concerning academic programs should consider the following guidelines.

1. A core of general education or liberal arts and sciences courses shall be required in all undergraduate programs in order that students may have a sound educational background, understand social and personal values, and be productive citizens of our society.

TABLE 9

UNIVERSITY OF NEVADA SYSTEM

Headcount Enrollments
(Fall Semester)

	1972-73 Actual	1973-74 Actual	1974-75 Actual
University of Nevada, Reno			
Lower Division and Two Year	3,455	3,300	3,328
Upper Division	2,113	2,157	2,315
Graduate	1,110	1,198	1,298
Non-Degree	462	370	390
Auditor	42	44	74
Total, UNR	7,182*	7,069	7,405
University of Nevada, Las Vegas			
Lower Division and Two Year	2,896	3,032	3,291
Upper Division	1,397	1,575	1,700
Graduate	551	495	532
Non-Degree	915	860	1,132
Auditor	37	102	21
Total, UNLV	5,796	6,064	6,676
Clark County Community College	1,580	3,249	6,011
Northern Nevada Community College	336	610	982
Truckee Meadows Community College**	0	0	0
Western Nevada Community College	2,095	4,717	4,760
SYSTEM TOTAL	16,989	21,709	25,724

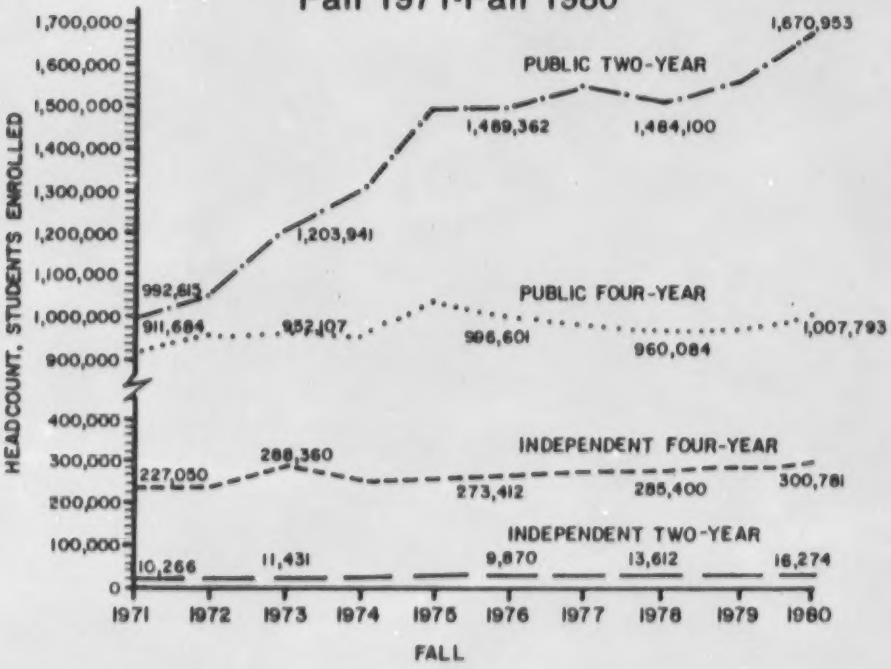
*Six-week report. First report not available.

**Prior to 1976-77 academic year, the campus now known as Truckee Meadows Community College reported its enrollments in conjunction with Western Nevada Community College.

1975-76 Actual	1976-77 Actual	1977-78 Actual	1978-79 Actual	1979-80 Actual	1980-81 Actual
3,564	3,444	3,375	3,285	3,516	3,916
2,513	2,605	2,698	2,560	2,587	2,658
1,389	1,455	1,490	1,485	1,703	1,707
599	562	552	578	760	729
101	61	92	90	76	151
8,166	8,127	8,207	7,998	8,642	9,161
3,732	3,772	3,812	3,676	3,968	4,249
2,011	2,102	2,328	2,328	2,255	2,484
599	632	686	632	632	704
1,239	1,262	1,598	1,884	2,309	2,374
40	33	20	5	10	0
7,621	7,801	8,444	8,525	9,174	9,811
7,040	7,273	7,893	8,825	8,742	10,095
925	1,076	1,199	1,300	1,430	1,424
0	3,885	4,721	5,627	5,961	6,837
6,246	2,165	2,543	2,752	3,042	3,384
29,998	30,327	33,007	35,027	36,991	40,712

TABLE 10

Higher Education Headcount Enrollment in the West by Institution Type and Control Fall 1971-Fall 1980



Source: National Center for Education Statistics

- In Fall, 1980 2,995,801 students were enrolled in western higher education institutions, an increase of 40 percent from 1971. This total represents 25 percent of the national student body, up slightly from 24 percent in Fall, 1971.
- Stable but consistent growth characterizes western independent higher education and public four-year enrollments. The public two-year colleges, however, have been experiencing strong growth in headcount enrollments.

2. The distinction between the mission of the community college for lower division instruction and the universities for baccalaureate and graduate level instruction shall be maintained to avoid duplication of effort.
3. Periodic and regular reviews of academic programs will take place in order to maintain quality and reallocate resources to areas of instruction worthy of additional support.
4. Traditionally changes have been made in academic programs through the addition of new programs, faculty, and funds. Innovation in new program development should consist of reallocation of resources, reassignment of instructors, faculty development, and interdisciplinary changes in curriculum.
5. Program development should be linked through careful planning to economic conditions of the nation, region, and the state. Where students seek an occupationally or professionally-oriented degree, prospects for employment should be favorable for graduates.
6. Academic admissions standards of specific programs at community colleges and universities should be consistent with the educational mission of the campus and demonstrated student levels of performance to assure competence. Graduation standards should also demonstrate student literacy and competence in selected areas.
7. Remedial programs should be coordinated among community colleges and school districts so that desired levels of student skills are reached without duplication of effort.

8. High technology and related needs should be identified by system institutions and instructional and research programs should be designed to meet these needs.
9. Doctoral programs of instruction and research should be encouraged in a limited number of areas where the ability to meet national standards of excellence exists.
10. Program development should be consistent with master plans of each institution and with statewide policies to ensure effective coordination and an improved cost-effective use of resources. Budgetary limitations should be related to program planning.
11. The development and location of professional schools should be based on demonstrated need and identified financial resources. Multiyear cost projections and estimates of graduates and employment opportunities should also be included.

The institutions within the University System offer a full range of academic programs to meet intellectual, professional, occupational, and community needs. They are also closely related to economic and employment needs of the State of Nevada. Graduates of the campus will offer a skilled pool of potential employees to aid in economic development and diversification. Campuses will continue to set priorities according to academic and economic needs and offer appropriate courses of study. A full listing of all degree options within the state is easily referenced in the appendix.

In existing and new programs at all collegiate levels, excellence in instruction shall be a constant goal. Innovation in instruction, computer-based instruction or self-paced computer courses, and faculty development of skills, should be pursued across the curriculum.

Areas of instruction should be regularly reviewed by each institution to assure continued quality, need, and adherence to academic plans. Growth of academic programs should occur with direct relation to budgetary considerations and improved fiscal-programmatic planning should occur.

Consistent with the general educational, professional, or occupational mission of each institution, possible new programs have been described for each campus. These programs, illustrated below for each campus, mainly reflect programmatic expectations for the 80's. Over the long-term, changes would be expected as technological and economic realities and academic needs impact higher education. For example, greater availability of computer-based instruction and increased computer capacity may lead to a more computer-oriented curriculum in engineering and the sciences, and other disciplines as well. Changing job demand into the 90's in information and service industries would also affect programs, as would a more diversified economy in Nevada.

Proposed New Programs
UNLV Master Plan

College or Division	Bachelor	Master	Ph.D.	Options	Other
Allied Health	Medical Technology Physical Therapy Health Care Admin. Radiation Health Sci.	Nursing		Ultrasound Geriatrics Retirement Comm. Mgmt.* (with Hotel Admin.) Special Children * (with Education) Inmate Services* (with Arts & Letters)	
Arts and Letters	Music Dance	Art Journalism Creative Writing History Teaching Social Work Criminal Justice Theatre Arts Concerns & Problems of Women* (with Education)	Psychology	Musical Theatre Music Management * (with Hotel Admin.) General Studies * (with Sci. Math & Eng.) Inmate Services* (with Allied Health) Home Health Care* (with Allied Health)	
Business & Economics			Business Admin. Economics	Music/Business Recreation & Gaming Econ. Regional & Resources Econ. Institutional Finance Expansion of night programs Center for Executive Develop.	
Education	Human Services Dental Hygienists Technical Occupations	Supervision in Couns Concerns & Problems of Women* (with Arts & Letters)	School Psych. Computer in Ed.* (with S.M. & E)	Counseling (EdS) Counseling (MEd/MS) Supervision in Counseling (EdS Substance Abuse Certification/Recert. Prep. Vocational Evaluation Speech Pathology Gerontology & Counseling	

Proposed New Programs
UNLV Master Plan

College or Division	Bachelor	Master	Ph.D.	Options	Other
Education (cont.)				A Center for Human Development, Family & Adult Services Special Children* (with Allied Health)	
					School of Health, PE, Rec. & Dance (to offer MS and DE degrees)
Hotel Administration				Retirement Community Mgmt.* (with Hotel Admin.) Music Management* (with Arts & Letters) Gaming Institute Hotel-Casino Law Hotel-Casino Architect. ROTC Mess Mgmt.	
Science, Math & Engineering	Electronic Computer Engineering BSEE Statistics	Water Resource Mgmt. Geology Statistics	Computer Ed.* (with Educ.) Biology Computer Science	Chemical & Production Engineering General Studies* (with Arts & Letters)	
Graduate College (in support of recommendations made by the colleges, the following are cited as possibilities)					

Proposed New Programs
UNLV Master Plan

College or Division	Bachelor	Master	Ph.D.	Options	Other
Graduate College (cont.)					
Allied Health		Nursing			
Arts & Letters		Journalism Theatre Arts			
Business & Economics		Accounting	Business Admin. Economics		
Hotel Administration		Hotel Admin.			
Science, Math & Engr.			Biology		
Computer Users Group					5 phase plan to expand computer capabil.
Division of Continuing Ed.					non-tradit. degrees
Museum of Natural History					Accreditation - AAM; computerization of catalog

Proposed New Programs
UNR Master Plan

College or Division	Bachelor	Master	Ph.D.	Other
				School of Journalism (including Center for the Study of Communications)
Arts and Science		Criminal Justice Historical Preservation Geography Social Work		
Arts and Science School of Medicine	Physical Therapy Occupational Therapy			School of Health Related Professions
Agriculture Arts and Science School of Medicine			Biomedical Sci. Biological Sci. Neuroscience Cellular & molecular biol.	
School of Medicine School of Veterinary Sciences		Comparative Pathology		
Additional Interdisciplinary	Land Use Planning Fire Science Environmental Studies Agriculture Engineering Urban Studies Computer Science Vocational Education* Legal Studies**	Genetics Nutrition Botany Function morphology Immunology Comparative Physiology Behavioral Sciences Gerontology Occupational Health Bioengineering	(Possibilities at Master or Doctorate level)	

*To be jointly offered with community colleges
**(Paralegal; through Judicial College and P.Sc.)

Proposed New Programs
Clark County Community College

Division	Certificate of Achievement	Associate of Applied Science	Associate of Arts	Other
Business	Word Processing Program	Word Processing Program		
Business & Human Svcs.				
Communication & Arts	Communications Graphic Arts	Graphic Arts	Communications Fine Arts	(Modifications of courses into three major programs)
Science & Technology	Dental Assisting (certificate and/or degree) Aircraft mechanic (certificate and/or degree)	Emergency Medical Services Physical Education (certificate and/or degree for teacher aides in P.E.) Respiratory Therapy Technician Architectural Drawing Survey Technician	Math	
Community Campus	Ornamental Horticulture	Ornamental Horticulture		Telestudies Program for Assoc. of General Studies Motorcycle Training Program
Student Svcs.				Health Care Career Program

Proposed New Programs
Northern Nevada Community College

Vocational-Technical Education	Construction Technology Program LPN program (to alternate between Ely and Winnemucca) Develop a "core" of mechanical technical courses to be shared by four programs (career cluster approach)
General, Developmental & Continuing Ed.	College-wide program for improving student performance in math and writing Develop programs beyond survival training to meet the needs of non-English speakers

Proposed New Programs
Truckee Meadows Community College

Occupational Education

Allied Health Division

Associate in Applied Science Degree (2 yr.)
- Mental Health Technology
- Medical Lab Technology
- Respiratory Therapy Technology
- Veterinary Assistant
- Paramedics

Certificates of Achievement or Completion
- Pharmacology Assistant
- Geriatric Assistant
- Medical Assistant
- Mortuary Science
- Dietetic Technician

Continuing Education classes
- Nursing (ADN & PN)
- Dental Assisting
- Radiologic Technology
- Emergency Medical Technology

Trade & Industry & Public Service Division

Explore feasability of developing majors in:

Electronics:	Slot Machine Repair, Appliance Repair, Radio-TV Repair, Communications, Maintenance Technology, Electro-Mechanical Tech., Biomedical Electronics
Automotive:	Small Engine Repair, Motor Cycle Repair, Power Frame, Small Diesel Repair, Large Diesel Repair, Auto Body & Painting, Insurance Appraisal, Auto Counterman
Welding:	Metallurgy, Structural Lay-Out
Drafting:	Architectural Drafting, Engineering Drafting
Food Serv.:	Institutional Foods, Catering, Nutrition, Front of House Activities
Air Cond./ Refrig. & Alt. Energy	Solar, Wind, Geothermal, Wood

Certificate of achievement in Child Development (2 yr.)

Regional Administration of Justice Academy

Proposed New Programs
Truckee Meadows Community College

Trade & Industry & Public Service Division (cont.)	Expand apprenticeship program associate degree to include: Electrical Sign Workers Bricklayers Tile Setters Diesel Mechanics Certificates of Achievement (2 yr.) Drafting Electronics Engineering Technology Welding
General and Developmental Education General Education	Develop & implement science introductory courses in various fields
Developmental Education	
Adult & Community Education	Develop concentrated one-semester, cluster, occupational programs

Proposed New Programs
Western Nevada Community College

Carson City	
Occupational Programs	Program leading to a certificate in para-legal training
	Associate Degree in Applied Science in RN program (ADN)
Public Service	Associate of Applied Science Degree & Certificate of Completion in Traffic Safety
Liberal Arts Program	Develop & implement a learning lab (math, reading & writing skills)
Fallon	
Occupational Programs	Associate of Applied Science in Industrial Mechanics & Maintenance

RESOURCES FOR THE FUTURE

To meet the challenges of higher education in a growing state, adequate funding must be maintained. This need for fiscal support is compounded by both the probability that federal levels of support will not make up the difference for needed funds, and that state revenue policies will continue to reflect desires for modest levels of taxation. The University of Nevada System has revenue sources of fees, gifts, grants, tuition, and state appropriated funds, but as a state system it is, of course, dependent upon state allocations. For the institutions of the University of Nevada System to accommodate increasing students and serve the needs of the state, state appropriations must grow along with increases in campus revenues and private giving.

The Carnegie Council on Policy Studies in Higher Education, in a study on higher education to 2000, notes that higher education should reconcile itself to the reality of limited new public funds and place great emphasis on private support.[1] However, it also notes that over the long run, private support has been a falling component of support, even as average income rises.[2] Clear advantages rest in the ability of our campuses to

[1]Carnegie Council on Policy Studies in Higher Education, Three Thousand Futures, 1980, p. 107.

[2]Ibid.

attract private sources of revenue. Independent resources beyond state appropriations would yield increased possibilities for improved program quality, balance in academic offerings, and the potential to identify and support academic centers of excellence. The autonomy in expenditure would provide our institutions with greater flexibility to support worthy course offerings or programs.

The University of Nevada System should encourage expansion of private support, and this should be considered as an additional resource rather than a substitute for public funding. "A corollary of this is to encourage policies that make public funds act as nearly like private funds as possible. This means public foundations with the autonomy to act like the best of the private foundations."[3] The institutions of the system should increase the expertise of their foundations and plan to achieve greater levels of support.

Increases in fees and tuition should also be analyzed to ensure that such increases do not have an adverse effect on enrollment levels or educational opportunities for Nevadans. Fees and tuition can be expected to increase in order to keep pace with inflation and rising costs, but they should not be expected to be the major basis of budgetary support. Differences in tuition between the community colleges and universities should be maintained according to System guidelines, as should tuition

[3]Ibid.

for graduate programs. Goals approved by the Regents for open access to the community colleges and competitive yet accessible admission to the universities should be reviewed on a regular basis according to academic quality, enrollment trends, levels of student fees, and instructional costs.

As Nevadans have been accustomed to modest tuition levels, their expectations of access to higher education at similar rates are likely to continue. Increases in tuition are difficult in the light of these expectations, and the University System might better inform the public of the reality of rising costs and of the benefits to students and the state from its educational services.

As the Carnegie Commission has noted in a report on the future, "Institutions of higher education, by and large, will need to be more concerned with the effective use of their resources."[4] This process has certainly begun in the Nevada System, but increased financial effectiveness will be the way of the future. The report further notes that productivity is difficult to increase and has remained constant for the last 50 years.[5] Yet innovation in the use of resources will be the key to campus flexibility and program survival.

The development of guidelines for effective use of financial resources and cost savings short of financial exigency should consider the following.

[4]Ibid, p. 104.

[5]Ibid.

1. An increase in the student-faculty ratio as a cost-saving measure affects academic quality and programmatic balance. A student-faculty ratio should be supported that does not result in crowded classrooms, diminished academic quality, limited faculty turnover, or reduced number of classes.
2. Long-term effects of short-term savings measures such as reducing operating and maintenance costs, or library acquisitions should be identified and considered in budgetary planning.
3. Program review and curricular review should occur on a regular basis, and programs should be eliminated or reorganized to realize savings.
4. Innovative methods of instruction such as planning some courses to be smaller, self-paced, or computer-based, should be offered along with traditional lectures to provide a new educational mix.
5. Budget policies should be adopted to reward cost savings and innovative fiscal management.
6. Institutional accountability for expenditures should be maintained and reviewed for compliance with established policies.
7. Alternate programs for student aid, including flexible payment plans, should be developed in the light of rising educational costs and decreased federal support.
8. An improved management information system should be implemented to improve planning, administration, and budgetary practices.

9. Personnel and tenure policies should be adopted that ensure employee rights and allow flexibility in staffing patterns to meet changing enrollment and educational needs.

10. Efforts to increase private support should be encouraged and well integrated into fiscal planning and related to programmatic needs.

National trends in postsecondary education finance also point to the need for improved cost effective management. Throughout the 70's, the largest growth factor in public colleges and universities' budgets was increased state appropriations.[6] A study conducted by the Education Commission of the States (ECS) concludes that this growth is unlikely to continue in most states.[7] The future predicted by this study is not a positive one, as it states "...the poor health of state budgets combined with federal cuts produce a state/local trade-off between higher taxes and service cuts, and a local/family/student situation of higher costs or less service, in this case postsecondary training."[8] However, in a more detailed state-by-state analysis, ECS concludes that Nevada, because of its economic outlook, has a higher fiscal capacity than most states to solve long-run public revenue problems.[9]

[6]Education Commission of the States, "The Condition of the States," 1982, p. 11.

[7]Ibid.

[8]Ibid.

[9]Ibid, pp. 60-63.

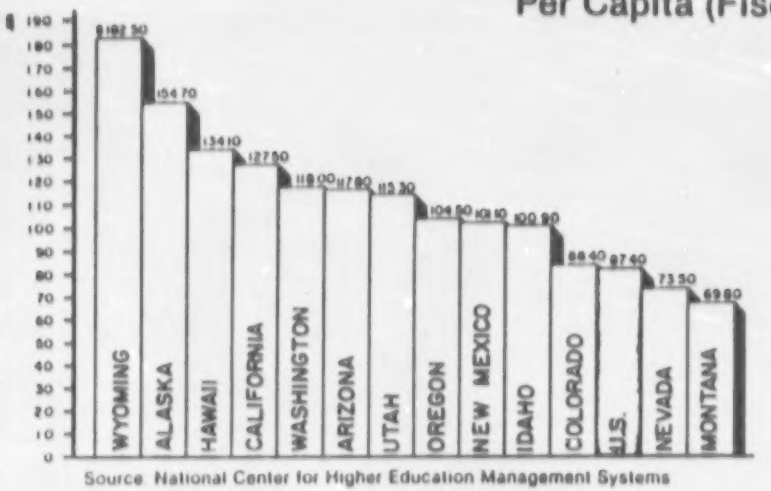
Likewise, the U.S. Department of Education has noted that total expenditures for public institutions of higher education rose from $17.6 billion in 1970-71, to $46.7 billion in 1980-81, and predicts that by 1990-91 the total will fall to $44.6 billion (in constant 1980-81 dollars).[10] Federal trends in levels of support through grants, student aid, and contracts will impact Nevada, though state revenues and expenditures on higher education could surpass national trends because of predicted growth.

Currently, Nevada ranks below the national average in terms of expenditures per capita for higher education and behind most western states. Tables 11 and 12 indicate levels of state support. As tuition and fees make up a larger area of support in Nevada than other western states, increased state appropriations appear to be the major future source of resources for higher education. Aggressive programs to attract community and private support should accompany sound budgetary planning and innovative cost control measures as components of a long-range effort to demonstrate fiscal accountability and raise levels of state support. Nevada budgetary and legislative decisions will have an important effect on the future of higher education in the state.

[10]U.S. Department of Education, National Center for Education Satistics, "Trends in Education," 1982.

TABLE 11

State and Local Support of Higher Education Per Capita (Fiscal Year 1979)

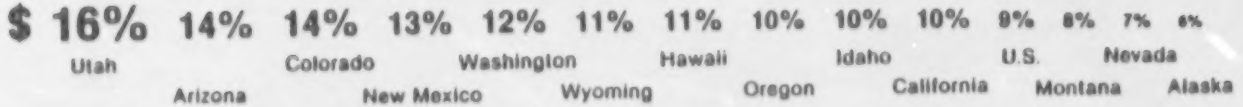


Source: National Center for Higher Education Management Systems

- State and local support of higher education varies widely from state to state. Ten of the thirteen western states are among the top fifteen states nationally on this measure of support, which is due in part to the concentration of students in public higher education. All but two states are above the U.S. average on this measure. These figures include, for some states, financial aid funds to students attending independent institutions.

TABLE 12

Percent of State and Local Government Expenditures Allocated to Higher Education (Fiscal Year 1979)



Source: National Center for Higher Education Management Systems

- States vary, too, in the percentage of state and local expenditures allocated to higher education. Ten of the thirteen western states exceed the national average for the proportion of total spending that is devoted to higher education. Again, these figures are influenced heavily by the reliance on public colleges and universities in the West.

The fiscal future of the University of Nevada System is complex, influenced by federal, state, and local policies, and dependent upon state revenues and resultant budgetary allocations. But, due to the fact that economic forecasts and growth trends are positive for Nevada, future resources should be available to provide quality education in our colleges and universities.

FUTURE CONTRIBUTIONS OF NEVADA'S COLLEGES AND UNIVERSITIES

The future of public higher education in Nevada depends upon the capabilities and opportunities for the University of Nevada System to meet the needs of the nation and the state, and through the quality of its instruction, research, and service, to receive public and private recognition and support. The Washington Post, in an editorial, declared, "Taken together, the universities are probably the strongest of all institutional influences on the American future."[1] Taken together, the colleges and universities in Nevada will likewise perform as a full partner with business, government, and the public in defining and shaping the future of Nevada.

The contributions of our campuses to the creation and transmittal of knowledge, to the preparation and graduation of skilled employees, and to the application of science and technology to public problems, link them closely with the general welfare of the state and its citizens. The collective educational attributes of the University of Nevada System make it a valuable resource to the state.

The Governor's Commission on the Future of Nevada recognized the contributions of higher education and made several recommendations for the future. They include:

[1]Washington Post, December 21, 1977.

· Promote the continuation and improvement of the University of Nevada System, emphasizing quality and excellence in higher education.

· Support the planning efforts of the Board of Regents in maintaining quality education in Nevada.

· Recognize the economic, educational, and cultural benefits to the state and communities from the University of Nevada System.

· Provide substantial increases in state support for the continuation and expansion of research in the universities as a means of enabling the state to meet the demands to find solutions to the complex issues it will face in the years to come.

· Support university efforts to expand curricular offerings to help meet the projected additional professional manpower needs of the state.

· Promote the continuation and improvement of community colleges in Nevada. Encourage the improvement of occupational programs geared towards the needs of the community [2]

The Governor's Futures Commission also recognized the importance of vocational education, graduate education, and scientific research. More recently, the Governor's Commission on

[2] Report of the Governor's Commission on the Future of Nevada, December, 1980, pp. 72-73.

Economic Diversification reinforced the need for quality higher education in Nevada if the state is to achieve economic diversification. The Commission investigated the question of how a joint commitment of education, government, and the private sectors in Nevada can meet the educational needs of the high technology professions, as well as vocational program support. Their recommendations support the Futures Commission findings and include:

- Program quality should be maintained as a priority even as we concentrate on the best use of limited resources.
- Develop data bases and analytic techniques to project supply and demand opportunities in technology and energy-related areas.
- Design and review curriculum in light of overall industry needs and program quality.
- The necessity to retrain educational staff to meet current demands.
- University special emphasis should be placed on building quality programs by providing baccalaureate training, graduate training, and advanced continuing education.
- Community colleges should be geared toward technological support programs. Special emphasis should be placed on fiscal support to provide the facilities and equipment needed to produce a well-trained work force, especially in high technology areas, on a broad scale.[3]

[3]Final Report of the Governor's Commission on Economic Diversification, October 1982, pp. 16-17.

The Carnegie Council, in its study of the future of higher education, has also recognized the tremendous impact of higher education on our nation's economic and social fabric.[4] It recommends that campuses make critical choices in areas such as improving academic quality, defining academic balance of programs, improving effective use of financial resources, improving leadership, and that they accomplish systemwide planning, intensify recruitment, and maintain quality, and that the states provide increased student aid, maintain levels of per capita funding, and assist higher education in developing plans for change, and that the federal government support research, increase student aid, and avoid excessive regulation.[5]

The Carnegie Council made all of these and other recommendations based on the premise that the benefits of a healthy system of higher education are central to social and economic progress and individual improvement. In Nevada, the University of Nevada System is both a part of, and an important contributor to, the social and economic well-being of the state. With continued growth and social and technological change in Nevada, the contributions of the University of Nevada System will be important ones to improve the capabilities of the state to meet the future.

[4]Carnegie Council on Policy Studies in Higher Education, Three Thousand Futures, 1980.

[5]Ibid.

The year 2000 will see higher education in Nevada using new techniques to accomplish traditional goals in teaching and scholarship. The University of Nevada System will continue to meet the major responsibilities of expanding knowledge and for educating younger and older students to deal effectively with the economic, social, and political challenges of the future.

INDEX OF DEGREES OFFERED

UNIVERSITY OF NEVADA SYSTEM

The following index contains a listing of all degrees presently offered by the campuses of the University of Nevada System classified by level of degree, academic field, and campus. The classification of instructional programs, prepared by the National Center for Educational Statistics (1981), has been used as a guide to categorize degrees. Degrees offered are included for the following campuses:

- University of Nevada, Las Vegas
- University of Nevada, Reno
- Clark County Community College
- Northern Nevada Community College
- Truckee Meadows Community College
- Western Nevada Community College

University of Nevada System Degrees

Program	UNIVERSITIES UNR	UNLV	COMMUNITY COLLEGES CCCC	NNCC	TMCC	WNCC
AGRICULTURE						
Agriculture	C,B					
Agriculture Mechanics	C,A					
Agricultural and Resource Economics	C,B,M					
Animal Science	C,B,M					
Farm and Ranch Management	C,A			A		
Industrial Mechanics	C,B					
Ornamental Horticulture	C,A		C,A			
Pest Control	M					
Plant, Soil and Water Science	C,B,M					
Renewable Natural Resources	C,B,M					
Veterinary Science	C,B					
BUSINESS						
Accountancy		M				
Accounting	B,M	B	C,A		C,A	
Accounting – Income Tax Preparation			A			
Accounting Technician				C		
Administrative Secretarial					C,A	
Banking and Finance			C,A			
Bookkeeping			C			
Business Administration	B,M	M,D				
Business Management			C,A			
Business Mid-Management				A		
Casino Management Technology			C,A			
Clerical					C,A	C,A
Credit Union Specialization			C,A			
Economics	B,M	B,M				
Finance	B,M	B				
General Business					C,A	C,A
Hotel Administration		B,M				
Hotel/Motel Management					C,A	
Hotel Technology			C,A			
Insurance					C,A	
Legal Secretarial					C,A	
Management	B,M	B				
Management Information Systems		B				
Management and Marketing				C		
Marketing	M	B			C,A	A
Marketing/Merchandising/Retail Management			C,A			
Medical Secretarial					C,A	
Mid-Management					C,A	A
Money and Banking					C,A	A
Office Administration			C,A	A	C,A	C,A
Real Estate			C,A		C,A	C,A
Real Estate (Escrow)			C,A			
Records Management			C,A			
Savings and Loan			C,A			
Secretarial					C,A	
Secretarial and Clerical				C		
Small Business Management					C,A	C,A
Stenographic Secretarial						A
Transportation					C,A	
Word Processing			A		C,A	C,A
COMMUNICATIONS						
Communication Studies		B,M				
Communications			A			
Journalism	B,M					
Speech Communication	M					
Speech and Theatre	B					
COMPUTER AND INFORMATION SCIENCES						
Computer and Information Science	M					
Computer Science		B,M				
Data Processing			C,A		C,A	A
Micro-Computer					C,A	
EDUCATION						
Athletic Training		B				
General Counseling		M				
Counseling and Educational Psychology and Foundations		M,D				
Counseling and Guidance Personnel Services	M,S,D					
Curriculum and Instruction	D	M,S,D				
Early Childhood Education				A		
Educational Administration and Higher Education	M,S,D	M,S,D				
Educational Foundations and Media	M,S,D					
Elementary Education	B,M,S,	B				
Infant/Toddler Education			C,A			
Physical Education	B,M	B,M				
Pre-Kindergarten Education	C,A					
Preschool Education			C,A			
Recreation	B	B				
Secondary Education	B,M,S	B				
Secondary, Postsecondary and Vocational Education		M,S,D				
Special Education	B,M,S	B,M, S,D				
ENGINEERING						
Automotive Technology Program			C,A		C,A	
Chemical Engineering	B					
Civil Engineering	B,M					
Drafting Technology Program			C,A		C,A	
Engineering	D	B				
Electrical Engineering	B,M					
Electronic Engineering Technology	A		C,A			
Electronics Service Technology			C,A			
Electronics Technology					C,A	
Engineering Design Technology	A					
Engineering Drafting					C,A	
Engineering Science	B					
Geological Engineering	B,M,P					
Industrial Electronics Technician			A			
Mechanical Engineering	B,M					
Metallurgical Engineering	B,M,P					
Mining Engineering	B,M,P					
Occupational Safety and Health			A			
Occupational Safety and Health Technician			C,A			
Solar Energy Technology					C,A	
Surveying Technology						A
Welding Technology			C		C,A	C,A
FOREIGN LANGUAGES						
French	B,M	B,M				
German	B,M	B,M				
Romance Languages		B				
Spanish	B,M	B,M				
HEALTH						
Dental Assisting					C,A	
Dental Hygiene			A			
Emergency Medical Technology					C	C
Exercise Physiology		M				
Health Education	B	B				
Licensed Practical Nurse			C	C	C	C
Medical Technology	B					
Medical Sciences	B					
Medicine	D					

Offered by Level, Field, and Campus

Program	UNIVERSITIES UNR	UNLV	COMMUNITY COLLEGES CCCC	NNCC	TMCC	WNCC
Nursing: RN	B,M	A,B		A	A	A
Nursing Assistant						C
Pre-Dentistry	B					
Pre-Medicine	B					
Pre-Physical Therapy	B					
Radiologic Technology		A,B			A	
Speech Pathology	B					
Speech Pathology and Audiology	M					
HOME ECONOMICS						
Child Development			A			
Fashion Trades	C,A					
Food Service Technology					C,A	
Home Economics	B,M					
Licensed Child Care Director				C		
Teacher Aide			C,A			
LAW						
Legal Assistant			A			
LETTERS						
English	B,M,D	B,M	A			
Teaching of English	M					
LIBERAL/GENERAL STUDIES						
Arts			A	A	A	A
General Studies			A	A	A	A
Liberal Studies		B				
LIFE SCIENCES						
Biochemistry	M,D					
Biology	B,M,D					
Biological Science		B,M				
Botany	B,M					
Zoology	B,M					
MATHEMATICS						
Mathematics	B,M					
Mathematical Sciences		B,M				
MULTI/INTERDISCIPLINARY STUDIES						
Asian Studies		B				
Film Studies		B				
Land Use Planning	M					
Latin American Studies		B				
Social Science Studies		B				
Women's Studies		B				
PARKS AND RECREATION						
Water Resources Management		M				
PERSONAL AND SOCIAL DEVELOPMENT						
Leisure and Recreation Service			C,A			
Recreation	B					
PHILOSOPHY, RELIGION AND THEOLOGY						
Philosophy	B,M	B				
PHYSICAL SCIENCES						
Applied Physics		B				
Atmospheric Physics	M					
Chemistry	B,M,D	B				
Earth Science(s)	B					

Program	UNIVERSITIES UNR	UNLV	COMMUNITY COLLEGES CCCC	NNCC	TMCC	WNCC
Geochemistry	M,D					
Geography	B					
Geology	B,M	M				
Geology and Related Earth Sciences	D					
Geophysics	B,M,D					
Geoscience		B				
Hydrology and Hydrogeology	M,D,					
Physics	B,M,D	B,M				
Science			A			
PSYCHOLOGY						
Psychology	B,M,D	B,M				
PUBLIC AFFAIRS AND PROTECTIVE SERVICES						
Administration of Justice			C,A	A	C,A	
Corrections					A	C,A
Criminal Justice	S	B				
Fire Science Technology			C,A		C,A	
Fire Service Management			C,A			
Industrial Security						C,A
Juvenile Justice					A	A
Law Enforcement					A	C,A
Police Traffic Safety						A
Public Administration	C	B,M				
Public Administration and Public Policy	M					
Social Work	B	B				
Traffic Accident Investigation						A
Traffic Engineering Technology						A
SOCIAL SCIENCES						
Social Science		B	A			
Anthropology	B,M	B,M				
History	B,M,D	B,M				
Political Science	B,M,D	B,M				
Social Psychology	B,D					
Sociology	B,M,D	B,M				
TRADE AND INDUSTRIAL						
Architectural Drafting					C,A	
Automotive Mechanics				C,A	C,A	C,A
Building Trades					C,A	
Diesel Technology				C		
Electronic Business Machine Services Technician			A			
Mechanical Drafting					C,A	
VISUAL AND PERFORMING ARTS						
Art	B	B				
Dance		B				
Fine Arts			A			
Graphic Arts Technology			C,A			
Music	B,M	B,M				
Theatre	M					
Theatre Arts		B,M				

KEY:

C -- Certificate of Achievement (all levels)
A -- Associate (A.A., A.S., A.A.S.)
B -- Baccalaureate (B.A., B.S., B.S.B.A., B.F.A., B.S.C.E., B.S.E.E., B.S.E.S., B.S.H.A.)
M -- Master's (M.A., M.S., M.B.A., M.P.A., M.Ed., M.M., M.A.T.E., M.S.V.C., M.S.C.E., M.S.E.E.)
S -- Specialist Certificate (1 year beyond Master's)
D -- Doctorate (Ph.D., Ed.D.)
P -- Professional (Geol.E., Met.E., E.M.)